DOCUMENT RESUME

ED 061 810 FL 003 037

AUTHOR Giles, W. H.
TITLE Cultural Contrasts in English-French Bilingual Instruction in the Early Grades.
INSTITUTION Laval Univ., Quebec. International Center on Bilingualism.
PUB DATE Nov 71
NOTE 29p.; In "Conference on Child Language," preprints of papers presented at the Conference, Chicago, Illinois, November 22-24, 1971, p368-395a

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Bilingual Education; *Child Language; *Cognitive Development; Cognitive Processes; Early Childhood Education; English; French; Interference (Language Learning); *Language Development; Language Instruction; Language Skills; Learning Theories; Phonology; Preschool Education; Psycholinguistics; Reading Instruction; *Second Language Learning; Spelling Instruction; Syntax

ABSTRACT

This paper discusses the relationship between language development and cognitive development in children within the framework of a French-English bilingual school situation. Initially the document covers the language development of the infant learning English; the author then describes specific problems of educating the English-speaking child with French as the principal means of instruction. Tables illustrate the results of tests administered to children in a French-English curriculum, pointing out areas of confusion. (VM)

ED 061810

CULTURAL CONTRASTS IN ENGLISH-FRENCH BILINGUAL INSTRUCTION IN THE EARLY GRADES

by
W.H. Giles

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

According to Piaget, the sources of intellectual operations are to be found, not in language, but in the preverbal, sensori-motor period when schemas are elaborated which prefigure certain aspects of the structures of classes and relations, and the elementary forms of conservation and operative reversibility. The formation of representational thought is contemporaneous with the acquisition of language. Both of these are seen to be aspects of the symbolic function in general. In this, the first verbal utterances of the young child are intimately linked to, and contemporaneous with symbolic play, deferred imitation, and mental images as interiorized imitation. Thought has its roots in action. Before the appearance of language, or of the symbolic function in general, the baby has overcome its initial perceptive and motor egocentrism by a series of decentrations and co-ordinations.

Language is seen as one of the instruments which enables the child through the symbolic function generally, to represent reality through the intermediary of signifiers which are distinct from the objects of the actions that they signify. This capacity to represent reality by distinct signifiers had its roots in early imitation.

If, however, it is true that the first words the child uses are signifiers of the object or actions which they signify, it is equally true that children do not start with words. They start with syllables which are

FL003 037

often ill pronounced, and are often an attempt to imitate either the whole or a part of the desired signifier. Thus, even the attempts at the first word, retain the imitative character of the symbol, imitated in isolation. The child who uses the sounds in an attempt to replicate words usually does so as part of an expression of a possible action - an expression of a demand or a desire.

Much of the speech learning done by the child immediately after birth is relatively independent of adult vocal stimulation. The crying and wailing of the young child, the methods of short sharp inhalation and prolonged exhalation are fundamental to the speech which is in the course of evolution. The lip, jaw and tongue movements required in all languages are repeatedly practiced. This physical activity is fundamental to speech readiness. The non-crying sounds of grunts, gurgles and sighs include most of the front vowels, the consonants k, l, g, and the clottal catch (a plosive sound made by suddenly releasing the air stream that has been held back by the closed glottis).

The effect of duck imprinting (Hess) where freshly hatched goslings were given a mechanical decoy which said "gock" led to the young goslings preferring the mechanical "gock" to the honk made by the adult goose. Even if geese are not human, we still know that institutionalized children learn more slowly than those who interact with their parents and with even two days of conditioning (Rheingold) three month old children have made substantial advances in sound production. The use of reflex sound tend to be followed by babbling which starts about 8 weeks after birth with little vowels such as ee, ih, uh and others made at the front of the mouth a few m's, b's and consonant sounds, juxtaposed with an assorted variety of gurgles and grunts.

At about the 6th month in a normal unprecipitated context (in the sense of Burton White's experiments) visual control over the hand resulting in a grasping and sucking schema which is then co-ordinated with socialized vocal play, is characteristic of the average child. Such vocal exercises are customarily employed to obtain attention, to support rejection and to express demands. This stage is often characterized by syllable repetition or the doubling of sounds (i.e. da da) which will be practiced to the exclusion of other sounds for weeks at a time. In fact, prelinguistic utterances during the first six months undergo parallel development for both deaf and for hearing children, thus indicating the importance of the physical structure of the human animal, or as Chomsky might describe it, of inborn biological factors.

At about the eighth month the child begins to use inflections in the babbling. Until this period the repertoire of sounds could probably be that of any language group.

Between eight months and a year, the sound vocabulary increases especially in the development of front vowels and consonants. Back vowels (u, ʊ, o, ɔ)are now used more extensively, and these appear to be fundamental in the development of early speech. It has been noted (Irwin & Curry) that 92% of all vowels uttered by babies are front vowels as opposed to 49% for adult speech. During this period babbling occupies a dramatically larger portion of the child's time as compared with crying. Speech sounds appear in meaningful words, singly, doubly, usually in a playful context. The first words of the child often resemble those of the adult. Many of them are of the "abracadabra" variety - such as when the child says "mama" and mama appears. Essentially the words used are words employed in a situational context as part of a total schemata.

At about 18 months the mythical average child has a vocabulary of

from one to twenty-five words. Many of these are one sentence words of a sort expressing demands or desires. As the child experiences a particular sensori-motor schemata by manipulating it, and an adult intervenes to provide the word, the child will, on repetition, come to recognize the words as part of the total experience. The child of this age employs a rich jargon in a seemingly purposive way, talking to people, animals and toys. The child's new teeth enable him to produce new sounds which must be practiced. Sometimes the child begins to parrot back what the parent has said.

At the age of two, the age chosen for beginning our formal consideration, the average child is talking. Language has become not only a safety valve, but also a tool. Simple and compound sentences have arrived and if the jargon has largely disappeared, his speech rhythm is uneven.

The verbal growth in the third and fourth years are especially important. The explorations of the child require an expanded vocabulary and a larger area of traditional syntax. He must expand his control of certain sounds, i.e., the tongue tip l and r sounds for the labial w, the use of the k and g plositives for t and d, and many combinations and blends.

In the learning of one's mother tongue, the child proceeds through a co-ordination of sensori-motor schemas which have been actively built up during the first 18 months of life, starting from hereditary reflexes, and which take place while language is being heard. The child's actions are often described in language terms with the young being conditioned to hearing certain sound patterns describing objects or activities. "By naming objects, and so defining their connections and relations, the adult creates new forms of reality in the child, incomparably deeper and more complex than those which he could have formed through individual experience", (Luria, 1966, p. 11).

He acquires a verbal label as one of the multitude of sensory attributes of an object, and a bond develops between word and referant.

In the case of the Luria twins, children of 5 used their own private sounds and words to communicate. This "language" was phonetically impaired, as were their physical games. The same thing is true for the younger normal child whose ability to understand another person's normal speech is dependent, not on a simple accumulation of vocabulary, but rather on a process of gradual discrimination of the verbal signals from which words are made up, and the physical situation within which the verbal signals are first presented.

An examination of the role of generalization, and classification of whole words, tends to underline some of the inherent problems in the learning of one's mother tongue. First, we should note that words not only have many meanings, but when juxtaposed with other words can be modified still further. Vygotskii's work has tended to show that changes in semantic structure is accompanied by changes in the inter-relationship among psychological processes comprising cognitive activity.

During the initial stages of development, discourse is understood by a child only within the limits of a specific concrete situation. Word meaning thus depends less on the relationship amongst the words than on the connection with a specific situation originating in the perception of some object which is recalled by a sentence.

In working with words differing by a single phoneme, Shvachkin showed that the general course of phonetic development in children aged 11 months to 1 year 10 months, phonemic development in Russian for native speakers passed through the following stages :

1) differentiation of vowels,

2) differentiation of the presence of consonants,

3) differentiation of sonants (all sonants have one common feature: in articulating a sonant the organs of speech form an obstruction to the flow of outgoing air, but there always remains a free passage either in the mouth or in the nasal cavity. In Russian the consonants ʃ and P are sonants; in English the sonants are such sounds as b, v, w, and d, being sounds in the normal production of which the voice plays a part) and articulate plosives (in English any one of the six consonants p, b, t, d, k, q, characterized by the breath stream at some point in the speech mechanism followed by a sudden release),

4) differentiation of hard and soft consonants,

5) differentiation of sonants,

6) differentiation of plosives.

Put in another way, repeated exposure to particular kinds of perceptual discrimination problems greatly favours educability. As a consequence of inter-problem learning and the formation of learning sets, discriminations are made more rapidly (Harlow; Reese). Learning how to learn means learning how to perceive. The growth of phonemic hearing in preparing preschool children to read El 'Konin and Zharova), the development of children's abilities to discriminate pitch and rhythm, (Vetlugina) follow within this pattern. It is not clear if this is totally or partially naturalism, but a shift in judgmental activity between the ages of 5 and 7 years leads the child from simple dependence upon sensori-perceptual

qualities to a reliance upon more inferentional conceptual manipulations. This is reflected in social judgments (Gollin), conceptual styles (Kagen, Moss & Sigel) and in conservation (Piaget, 1960). It is argued by some that there are allegedly optimal periods of readiness for every type of cognitive skill, and the child who fails to learn the skill at the appropriate age is forever handicapped in acquiring such skills at a later date (Fowler).

Shvachkin also notes that hearing plays an important role in distinguishing nuances in both the earliest stages of phonetic perception and the latest. This was seen as being especially important in the differentiation of consonants whose articulation have a close resemblance (i.e., between voiced, and unvoiced consonants). Gvozdev established that in Russian the assimilation of new sounds takes place as a gradual process through intermediate sounds. This classifying characteristic was carried further by El 'Konin and Zhurova. They trained 5 to 6 year old children to distinguish sounds in their mother tongue by classifying the phonemic nature of the words. Thus, by changing the "e" sound in the word kēt (meaning catfish) to "o", the child sees the production of a new word, kōt (meaning cat). The child begins to recognize the role that patterns make and the auditory discrimination which was taught, produced significant advances resulting in earlier effective teaching of reading, writing and the more complex types of oral speech.

This type of research has been continued in English and we have seen that, by the age of 3, over 90% of native speakers of English have mastered the vowel sounds in English, even if the consonant sounds are normally not all mastered until about 8 years of age. The nature of the progression of the learning of children's speech sounds in English seems to

indicate that varied factors, such as socio-economic status, the number of siblings and adults in the immediate environment, parents' education, the physical, mental and emotional growth of the child, all influence development. Indeed, in English, no single "developmental sequence" has been identified in the acquisition of articulatory skills. It seems likely that more than one sequence is possible (Healey) and, in any event, girls seem generally to pass boys at age 3 during the years 4 and 5.

At the age of 5, it would appear that both boys and girls have in English acquired the consonants p, b, m, h, w, d, n, k, t, q, and ng, and that girls will have also acquired l, leaving the normal sounds of y, j, tr, to be acquired during the year 5, and zh, wh, tr, to be acquired by both boys and girls at 6, with girls also acquiring ch, sh, r, and j. At the age of 7, boys traditionally acquire f, l, r, ch, sh, s, z, th, v, with girls acquiring the s, z, th. The consonant blends tr, bl, pr, etc. develop between the ages of 9 and 10, these usually arriving about one year after the single consonants have been acquired (Healey). Thus it is clear that in English at least, the phoneme basis of the use of one's mother tongue is not fully formed until about the age of 10 years. It has recently been observed that the earlier assumption that a child's whole grammar was acquired before the age of 7 is substantially inaccurate in at least the area of syntax (C. Chomsky). When one looks at the problem of positive transfer between one language and another in respect to development of phonemes, morphones or syntax, or negative transfer, it would seem that special problems exist for the bilingual due to the interference of the one language with the other, and it is at least a reasonable hypothesis that the late delay of English language development, may perhaps lead to either a

retardation in development or to a more enriched classificatory system of both syntax and sounds.

The mental processes which the child goes through during the stage of intuitive thinking (ages 4 - 7) are characterized for the most part by what Piaget calls "transductive thinking". That is, the child tends to link together neighbouring events on the basis of what the individual situations have in common. If we had a collection of groups of materials differing in shape and colour, then we might say that groups 1 and 2 could be linked by colour, and 2 and 3 by shape, with 3 and 4 linked again by colour.

One possible inference from this is that early reading and language learning in a bilingual school should be in the language with fewer exceptions, and one with more regular patterns. Thus we begin our first language of formal instruction in French, rather than in English. We recognize that early learning will reflect a kind of slow motion film state with the child moving from the particular to the particular. Variants in physical form, as in language, are introduced to ensure that when the child is mature enough to pass beyond the level of linear succession to a multiplicity of similarities and differences leading to hierarchical inclusions, he will have the experiences to be able to advance.

The movement of the child through the non-graphic state (in which the child is beginning to develop an understanding of logical classes) arrives during the learning of different ways of discriminating more and less, bigger and smaller, thicker and thinner, and, generally, the same or different. These concepts and the vocabulary associated with them are learned perceptually in action. If the child has a tendency to focus on only one aspect of a comparison, then a variety of physical interactions coupled with language may

enable the child to acquire the experience necessary to go beyond this preliminary stage. Depending upon the child, it would seem that, between the ages of 7 and 8, the child is able for the first time to co-ordinate representative relations, and to conserve the idea of sameness, and to reverse ideas. The differences in languages which are marked in the child of 5 and 6 begin to be separable on a developmental basis at 7 and 8.

The developmental levels in English found by Carol Chomsky and William Healey respectively for syntax and for phoneme development may be the normal levels in average children learning only in English, given the types of environment, including the education, of the individual children. Knowing what we do about linguistic transfers, the juxtaposition of several languages together is at least likely to cause initial confusion both in syntax and with respect to phonemes, and this is exactly what our experiences have indicated in our own school.

When the native speaker of English first comes to our school as a student, he has progressed, for the most part, through the development indicated. He brings to the school that chain of physical experience for sound making which is peculiar to native speakers of English. At the age of 3-3½, he enters our nursery classes which are entirely conducted in French as they have been for some 13 years. Since we know that passive learning devoid of sensori-motor involvement is relatively ineffectual in bringing about verbal assimilation, our programme is structured about games of a sensori-motor character. Children in their third year learn the names of things two to three times more quickly if they are permitted to handle them while learning the names (Razran). Thus we attempt to make our learning situation imitative of real life, sensori-motor in character, and active in involvement. The use

of mime, and drama becomes a must in the context, as does the involvement of the child in games in which the child's own choice of toys is of real importance. In our pre-school classes, the language of instruction is French, and French becomes the obligatory medium of instruction after a short period of time, for the Nursery, Junior Kindergarten, and Grade I. In Grades II and III, the students have up to 8½ hours a week in English to cover the normal programme taught during Grades I, II and III in all other all-English schools and to deal with at least some of the problems generated by the nature of the programme.

The fact that we start reading in English only in Grade II produces a number of side effects. We succeed in creating high standards in reading in French, and in avoiding the confusion which would probably have resulted if we had taught both English and French reading in Grade I, at the same time. On the other hand, we may have delayed phoneme development in English by not providing instruction in the language at the Kindergarten and Grade I year levels. Thus, the child who knows how to read in French will have acquired a phoneme association with that language. Because of a variety of factors, including the methods employed to teach reading, a significant percentage of our children read in English before having had a specific programme for English reading, albeit many do so with a French accent (see Table I). These results have been consistently achieved in the same 1,300 - 1,400 children who have passed through our Grade I. At the end of our Grade IV, our children have achieved equally interesting results (see Table II).

If our reading programme, despite phoneme confusion, achieves exacting results, our spelling programme produces results which are

predictable for two reasons. Firstly, creative writing is taught entirely apart from spelling, and the clash of phonemes produces a written form of English which is phonetically based, and confused as between English and French. The kinds of spelling errors typified by this type of approach, would include those set out in Table III.

A typical mistake found in other material is the simple addition of an extra e at the end of a word. Of course, our basic problem in English spelling is that there are more vowel and consonant phonemes in English than there are vowels to represent them. The relations amongst stress, spelling, and pronunciation constitutes a further variable. In some areas of spelling difficulties, the sound patterns are normally acquired for the first time at ages 7 and 8 in an all-English school where reading is firmly established in the mother tongue. The failure to teach these sounds formally may be a contributing factor in the failure, if any, within the normal pattern of acquisition of such sounds, at the ages of 5 and 6 years. Equally, the higher levels of achievement at later stages might also be a bi-product of the richer structural pattern of experiences within our school.

Striking problems in early spelling levels in English in The Toronto French School in Grades II and III, based on standardized tests, continue to ameliorate in Grades IV and V, in Grades VI and VII (see Table IV). We teach patterns in spelling early, and the exceptions somewhat later. This experience, like all bilingual experiences, is not really generalizable, because it probably depends upon the teachers, their linguistic training, the class size, the hidden curriculum of the home, the structure of the programme, the extent to which the programme is actually followed, the emotional environment of the classrooms, and a number of other significant variables, such as the economic use of what is being learned, the status of what is being

done, the social content of the language, the juxtaposition of native speakers of the other language, cultural supports which exist apart from native speakers, etc. Our bilingual speakers in Toronto are not the same as the bilingual English-French speakers in the Province of Quebec. Developmental patterns probably are somewhat consistent, but it is questionable whether other aspects, in different situations, follow the same pattern.

In some ways our progression in spelling resembles one matched pair experiment which we ran with our Grade II children some years ago. We wished to explore the effect of teaching English children who had been entirely taught in English in Kindergarten and Grade I, again in French in Grade II. We were looking at progress in English for these children when they were deprived entirely of English throughout the Grade II year, as compared with their control group which received a regular 7-hour a week English programme. We were looking at such questions as word recognition, vocabulary, reading, spelling and creative writing to see what effect, if any, a total absence of instruction in English at school would have on English results. Tests were given at Christmas and at the year end. Differences to the .05 level of significance existed in every area at Christmas but by the year end, the deprived students were achieving results which were statistically equivalent except for spelling results and those in creative writing. In the spelling area, on the tests employed, our average child in the normal Grade II seems to move from the Grade levels of 3.2 in Grade II, to 4.7 in Grade III, to 5.9 in Grade IV, to 7.9 in Grade V, to 9.2 in Grade VI. A systematic exposure to conflicting structures seems to provide the children with a better understanding of the phonetic base in both languages - but not immediately. The immediate result is confusion and

only when the child has developed the classificatory rules sufficiently can he separate English from French in this area. Having done that, the child seems to become much more aware of differences than the children reflected within the norms of the standardized tests.

Many types of linguistic confusion in syntax exist with English French bilinguals. The kinds of confusion may be a product of age, or the kinds of informal or formal learning patterns presented to the learner. As in other instances, our problems of confusion seem to be due to structural interference arising from parallel construction.

At the ages of 5 and 6, the constructions most frequently confounded in our school are those set out in Table V. It will be noted that in the main they consist of idiomatic expressions which must simbly be learned via pattern drills or generic games. The constructions are literal translations from English despite the fact that no translation from English to French is permitted at any time in the classes. What this seems to indicate is that native speakers of English who reside in an all English environment, where no French is spoken in the home, still seem in many cases to have a tendency to impose English syntax upon the French language even when all of his formal instruction for one, or two, or even three years is entirely in French. Perhaps even so small a thing as the existence of a French T.V. station, and the opportunity to obtain some reinforcement outside of class would modify the pattern. Our students do not seem to experience syntactical confusion in their English due to their learning in French. These two factors taken together might well be taken to lead to a conclusion that for the majority of our students, English is still dominant at the age of 8 or 9.

We know that classificatory exercises of all kinds increase learning from the very first days. Thus experiments involving the verbal description

of action and its visual depiction, have increased the learning of paired pictures (Reese). In addition to the normal development of classification in mathematical areas, we can regularly see children grouping items according to perceptual properties, and the self directed use of linguistic terms for characterizing objects demonstrates a gradual course of development (Olver and Hornsby). A researcher has found that a minimum amount of language is necessary for adequate performance on a sorting task (Stodolsky).

The age of five to six appears to be a transitional stage in orienting effectively against the suggestive power of strong stimulii. By the seventh year, it would seem that most children's motor systems have been sufficiently influenced by verbal classificatory experience that the systems themselves have become amenable to regulation by a verbal system of elective connections. Learning of this latter kind which conforms to prescribed criteria, rather than to transductive associations, must be initiated by an orienting or organizational process which is inherently complex, consisting of a preliminary representation of the product, then the process itself, and finally a system of reference points which allow the task to be performed (Gal'perin and Talyzina). The gradual replacement of concrete actions with verbal ones, reflects the gradual advances of the child towards a generative form of language and structure. It seems clear that both through published research, and our own experience, that a close linkage exists between verbal and non-verbal conceptual development, and that the organizing of reading, and spelling through patterns, tends to accelerate development in the skills area, by creating artificially the classificatory means which enable the child to advance. Generalizing of words and structures do lead to early confusion, but consistent approaches with regular reinforcement gradually

ameliorates the problem. Language by its nature is generalizing, and thus ensures cognitive feedback from perception of response into stimulus, with the one concrete and sensorily disclosed, and the other verbal. Words are probably more amenable to exact definition than sensori-motor responses, with the result that verbal interaction inevitably seems to lead to greater classification and differentiation.

Teaching through a second language has proven to be an effective tool in eliminating poor learning methods. After teaching through the medium of French we stopped using many traditional approaches because we found that the filter of teaching through the second language, eliminated understanding unless the learning programme was of a kind which would make up for an inadequate language control, and hence inadequate ties between the language used and cognition. For instance, we have learned that children with visual perceptual handicaps, when taught to read in French, do not acquire reading skills in English in Grade I, whereas those who have no such problems generate reading skills in English on their own on the basis of the approach learned in French. This has necessitated special approaches for all children in Kindergarten. Since it is commonly said that nearly 20% of all children have either minimal or substantial perceptual difficulties (L. Shannon), the size of the problem cannot be ignored. Thus, while the filter aspect can be an advantage, it can also produce enormous human disasters unless honest evaluation constantly leads to the rejection of poor teachers, poor curriculum, and poor methods in bilingual schools.

It may be argued that in the long run exposure to broader classifications of sounds through bilingual education will lead to greater classificatory understanding, and hence greater cognitive development in that area. No doubt this may be true if the learning is well structured and effectively organized, but such results have not been achieved consistently

in the bilingual schools for native speakers of French in Ontario, and in New Brunswick where a French English bilingualism has existed for over 50 years. It has also been suggested that there may be critical learning periods during which deliberate exposure to certain constructions would result in learning, but denial of the teaching might inhibit the development for all time (C. Chomsky, p. 102). This has implications for second language learning in general, and of course, it has particular implications for the whole question of whether one should suppress the teaching of a second language, until the first one is soundly acquired.

BIBLIOGRAPHY

Brooks, Nelson, Language and Language Learning, 2nd Ed., New York: Harcourt Brace & World, 1964.

Chomsky, Carol, The Acquisition of Syntax in Children from 5 to 10, The M.T. Press, Cambridge, 1969.

Chomsky, Noam, "Language and the Mind", Psychology Today, 1, No. 9, 1968.

Crothers, E. & Suppes, P., Experiments in Second Language Learning, New York: Academic Press, 1967.

El 'Konin, D.B., & Zharova, L.E., "A Contribution to the Problem Concerning the Development of Phonemic Perception in Preschool Children", Sensory Training of Preschool Children, Moscow: Izd, Akad, Pedog. Nauk RSFSR, 1963.

Fowler, W., "Dimensions and Directions in the Development of Affecto-Cognitive Systems", Human Development, 9, 1966, pp. 18-29.

Gollin, E.S., "Developmental Approach in Learning and Cognition", Advances in Child Development and Behaviour, Ed. L.P. Lipsett and C.C. Spiker, New York: Academic Press, Vol. 2, 1965, pp. 159-186.

Gesell, A., The Psychology of Early Growth Including Norms for Infant Behaviour and a method of Genetic Analysis, New York: The Macmillan Co., 1938.

Gvozdev, A.N., Mastery by the Infant of the Auditory Aspect of the Russian Language, Izd, Akad, Pedog. Nauk RSFSR, 1948.

Harlow, H.F., "The Formation of Learning Sets", Psych. Bull. 56, 1949, pp. 51-65.

Healey, William, Speech Development in Children, American Academy of Pediatrics, 1971.

Hebron, Miriam, Motivated Learning, London: Methuen & Co., 1966.

Irwin, O.C., and Curry, Y., "Vowel Elements in the Crying of Infants Under Ten Days of Age", Child Development, Vol. 12, 1941.

John, Vera, P., and Moskovitz, Sarah, "Language Acquisition and Development in Early Childhood", Linguistics in School Programmes, Ed. A.H. Marckward, Chicago: NSSE, 1970, pp. 167-214.

Kayan, I., Moss, H.A., & Sigel, I.E., "Psychological Significance of Styles of Conceptualization", Monograph Soc. Res. Child Develop., 28 (2), pp. 73-112, 1963.

Luria, Alexander, R., The Role of Speech in the Regulation of Normal and Abnormal Behaviour, New York: Liveright Publishing Corp., 1961.

Luria, A.R., & Yudavich, R., Speech and the Development of Mental Processes in the Child, London: Staples Press, 1966.

McNeil, David, "The Creation of Language by Children", Psycholinguistic Papers, Ed. J. Lyons and R.J. Wales, Edinburgh: Edinburgh University Press, 1967, pp. 99-115.

Olver, Rose and Hornsby, Joan, "On Equivalence", In Studies in Cognitive Growth, pp. 68-85, Ed. J. Brenley et. al., New York: John Wiley & Sons, 1966.

Piaget, J., The Language and Thought of the Child, New York: Routledge & Kegan Paul, 1959.

Piaget, J., The Psychology of Intelligence, New Jersey: Littlefield Adams, 1960.

Piaget, J., Structuralism, London: Routledge & Kegan Paul, 1971.

Razran, G., "The Observable Unconscious and the Inferable Conscious in Current Soviet Psychophysiology", Psych. Rev., 68, 2, 1961.

Reese, H.W., "Discrimination Learning Set in Children", In Advances in Child Development and Behaviour, Ed. L.P. Lipsett & C.C. Spiker, New York: Academic Press, 1963, Vol. I, pp. 115-145.

Shannon, L., One Million Children, published by Leonard Craneford for the Commission on Emotional and Learning Disabilities in Children, Toronto, 1970.

Shvachkin, N.K., "Development of Phonemic Perception of Speech in Early Childhood", Izd, Akad, Pedog. Nauk, RSFSR, 1948, No. 13.

Stodolsky, S., Maternal Behaviour and Language and Concept Formation in Negro Preschool Children : An Inquiry into Process, Unpublished Ph.D. thesis, University of Chicago, 1965.

Venezky, Richard L., "Linguistic and Spelling", Linguistics in School Programmes , Ed. A.H. Marckward, Chicago: NSSE, 1970, pp. 264-274.

Vetlugina, N.A., "The Development of Perception of Pitch and Rhythm Relationships in the Process of Singing Instruction Offered to Preschool Children", In Sensory Training of Preschool Children, Moscow: Izd, Akad, Pedag., Nauk, RSFST, 1963.

White, Burton, "The Initial Coordination of Sensorimotor Schemas in Human Infants : Piaget's Ideas and the Role of Experiences", In Cognitive Studies, Vol. I, Ed. J. Hellmuth, New York: Brunner Mazel, Inc., 1970, pp. 24-43.

TABLE I

Reading and Language Achievement in Grades I (without English) and Grades II (with English) according to The Metropolitan Achievement Primary I Battery Tests with Regular Classes at The Toronto French School.

	Grade I	Grade II
Word Knowledge	1.8	3.9
Word Discrimination	2.8	3.7
Reading	2.4	3.6

TABLE II

Reading and Language Achievement in English in Grades III, IV, V, VI, VII, VIII with a variety of Tests, on the graded level.

Metropolitan Achievement Tests

	Word Knowledge	Word Discrimination	Reading	Language	Language Steady Skills	Social Skills
Grade III	5.2	4.9	5.0	4.4	N/A	
Grade IV	6.8	5.7	6.4	6.1	N/A	
Grade V	8.8	N/A	8.3	7.7	7.2	7.1
Grade VI	8.8	8.3	9.5	8.4	8.4	9.3

TABLE III

should	chood - as in chêne
chare	cheir - as in cher or char
other	ather - a as in mal
my	mi - i equals y
mad	made - silent e at the end of a syllable in French to sound the syllable
because	bicose - i as in lire ose as in chose s = z
hurts	herts - er as in herbe, terminer
easy	isi - i = y s = z
does	das - a as in mal or tasse
always	allwes - non accentuated e
tease	tise - i as in litre or tisse s = z
laugh	laf - gh = f a as in mal af as in affaire
class	classe - as in classe
friend	frent - hearing difficulty between t and d
make	mek - as in mécano
to	tu - as in tu
lunch	luche - silent e
then	thenne - doubling of consonants between vowels as in ennemi
sure	shur - s = ch as in choux
have	av - silent e removed as in English

mad	mat - hearing difficulty between t and d
gate	gait - as in gaité
who	hoo, ho - w is silent, as in houx
why	wy, whi - i = y h is silent letter
she	chee - as in chat
sky	skace, seky, skic, sei - influenced by ski
come	cam - o = a as in camarade
can	can, cane, cann, kane - k = c as in canne
come	comme, kum, cum - as in comme
of	ov - f = v
blue	bleu - influence of French spelling
December	Desember - s = c
fish	fich - as in fiche
remembered	rememberd - e omitted because of French influence as in perdre
could	cold, cod - l omitted due to French influence of code
touch	tuch - English ou = French u
friend	frind - as in pin
their	there - as in mère
know	no - k and w are silent letters - no as in domino
knew	new - silent k
like	lyke - i = y
corn	korn - c = k
we	wi - English e = French i
knife	nife - silent k

few	fiu - iu = French i and English u
lots	lottes - as in botte
math	mathe - e as added at end of French words
he	hi - as in hibou
dentist	dentiste - influence of French spelling
soft	softe - e as added at end of French words
very	veri - as in véritable or vérité
towel	towl - silent e
can	kan - c = k
grey	grai - as in graine or graisse
hair	her - as in herbe
wait	wate - English a plus French e at end of word
she	che - as in cher

A number of errors are due to the interference of both English and French phonetics. For example :

s = z

i = y

rr = r

mm = m

i = é

Further errors may be due to hearing difficulties as in the case of f = v , and t = d , or to silent letters such as h and e.

It is to be noted that in an American school which is somewhat famous for its work with children who have visual perceptual difficulties - the Gowl school in South Wales, New York - children as a practice are not permitted to learn French

because their ongoing experience is reputed to show that Romance Languages in general cause enormous problems in English, and the French problem is most acute. Latin, on the other hand, which might be defined as the mother of French, does not appear to cause such confusion.

TABLE IV

Spelling Results in The Toronto French School in English on The Metropolitan Achievement Tests, Primary II Battery, Elementary Battery and Intermediate Battery.

Actual Grade	Average Grade Level	Average Percentile level for each Grade
Grade II	3.2	65
Grade III	4.7	70
Grade IV	5.7	75
Grade V	7.8	85
Grade VI	9.2	87

TABLE V

Correct Usage	Typical Error
J'ai faim	Je suis faim
J'ai soif	Je suis soif
J'ai froid	Je suis froid
J'ai chaud	Je suis chaud
J'ai fini	Je suis fini
J'ai cinq ans	Je suis cinq ans
Je suis un garçon	J'ai un garçon
J'ai mal à la gorge	J'ai mal au cou
J'ai un crayon	J'ai a un crayon
Ma maison	Mon maison ou moi maison
C'est ma maison	C'est la maison de moi
C'est la plume de John	C'est John's plume ou La John plume
C'est à John	C'est John's
C'est à moi ou c'est le mien	C'est mon
J'attends John	J'attends pour John
Quelle heure est-il?	Quel temps est-il?
La robe rouge	La rouge robe
A la télévision	Sur la télévision
J'ai parlé à John au téléphone	J'ai parlé à John sur le téléphone
Je vais chez le docteur	Je vais au docteur
Je vais chez le coiffeur	Je vais au coiffeur

Je vais chez le dentiste	Je vais au dentiste
Je vais au cinéma	Je vais à le cinéma
Puis-je me laver les mains?	Puis-je laver mes mains?
Puis-je avoir un crayon?	Puis-je un crayon?
J'écris mon devoir	Moi écris mon devoir
Tu es joli	Tu regardes joli
Je l'ai vu (le chat)	J'ai vu le
Je t'aime	J'aime toi
Lundi c'est ma fête	Sur lundi c'est ma fête
Mes cheveux sont courts	Mon cheveu est court
Il s'est moqué de moi	Il a ri de moi
C'est pourquoi faire?	Qu'est-ce que c'est ça pour?
J'ai 8 ans, 9 ans	Je suis 8, 9
Le bonbon rouge, etc.	Le rouge bonbon, etc.
Samedi, j'irai	Sur samedi, j'irai
Le matin, je	Dans le matin, je
Je le donne à Jacques (la, les)	Je donne le à Jacques (la, les)
C'est mon cahier (ou c'est le mien, le tien, etc.)	C'est mon (ton, son, ma, etc.)
Je suis allé (tu, il, etc.) tombé	J'ai allé (tu, il, etc.) tombé
Tellement	Si beaucoup
Il ressemble à	Il regarde comme
Je viens de demander	J'ai juste demandé

Il fait chaud, froid, etc.	C'est chaud, froid, etc.
Il m'embête	Il embête moi
Il faut	Je faut
C'est ce que je voulais dire	C'est qu'est-ce que je voulais dire
Je dois mettre	Je dois mis
Je peux apporter	Je peux porter
Je vais	Je vas
Ils se battent	Il bat (ou il batter)
Aux	à les
Au	à le
Des	de les
Du	de le